

# **APPENDIX I**

## **CALIFORNIA DEPARTMENT OF FISH AND GAME**

### **Biological Opinion**

This biological opinion was prepared by the DFG and addresses the state listed species in the Carrizo. The biological opinion prepared by the USFWS addressing the federally listed species is located in the Technical Appendix.

#### **I. Summary**

The Draft Carrizo Plain Natural Area Management Plan (Plan) was developed to direct the cooperative management of the CPNA for the next ten to twelve years. Management of Bureau of Land Management (BLM), Department of Fish and Game (DFG) and The Nature Conservancy lands will be guided by this Plan. The guidelines, goals and objectives reflect the long-term commitment to ensure that the CPNA is managed for the persistence of natural communities and indigenous species.

The Plan will:

- a. Establish long-term mission and vision statements that reflect the long-term objectives of the CPNA.
- b. Outline objectives and goals for the life of this Plan that will help to achieve the mission.
- c. Consolidate a descriptive inventory of area resources and outline appropriate public uses of those resources.
- d. Provide an overview of operations, maintenance and personnel needs to assist in developing annual work plans and budgeting for implementation of Plan goals.

## **II. Project Description**

The CPNA is a 253,628 acre area in southeastern San Luis Obispo and western Kern Counties. The Plan describes a wide variety of actions related to the management of the CPNA, and describes how third-party authorizations would be handled. Actions described in the Plan include:

Research, monitoring and inventory	Parking areas and pullouts
Facilities	Roads
Campgrounds	Signs and interpretive kiosks
Trails	Buildings
Fences	Planting vegetation
Cattle guards	Prescribed burning
Operation and maintenance	Emergencies
Authorizations to third parties	Public use includes:
Native American Ceremonies	Camping
Commercial tour groups	Hunting
Utility lines	Bird watching
Public roads	Photography
Restoration and habitat modifications	Sightseeing

The USFWS has prepared a February 1, 1996 Biological Opinion (1-1-95-F-149) for all federally listed species present within the CPNA. The February 1, 1996 Biological Opinion is incorporated herein by reference, and will serve as the State Biological Opinion for those species that are dually-listed. This Biological Opinion will discuss only the two State listed species.

## **III. Listed Species**

The CPNA, described elsewhere in the Plan document, has an impressive assemblage of listed plants and animals. The San Joaquin kit fox (FE/CT), giant kangaroo rat (FE/CE), blunt-nosed leopard lizard (FE/CE) and the vernal pool and longhorn fairy shrimps (FE) are federally listed species, and covered by the February 1, 1996 Biological Opinion (1-1-95-F-149) prepared by the USFWS for the Plan. Two other animals are State-listed threatened: the San Joaquin antelope squirrel (CT) and the greater sandhill crane (CT). Three plants are federally listed, the California jewelflower (FE/CE), San Joaquin wooly-threads (FE/CE) and Hoover's wooly-star(FT).

## **IV. Sources of Information**

Biologists, plant ecologists and other specialists from the managing partners, academia and the general public have been involved in developing the Plan. There has been a significant amount of field work, research and management activities conducted prior to the implementation of the Plan.

## **V. Project Effects on Listed Species**

The greater sandhill crane should suffer no adverse effect from activities associated with the Plan. These cranes use the CPNA to a very limited extent. There is some question if they are present in the CPNA at all most years. The Plan details general protective measures to be implemented to protect all wildlife, including sandhill cranes (lesser as well as greater),

Effects to the San Joaquin antelope squirrel would be the same as those discussed in the February 1, 1996 USFWS Biological Opinion for federally listed species. The following paragraphs presented in *italics* are taken directly from page 15 of the February 1, 1996 USFWS Biological Opinion:

### **a. General Effects on Listed Animal Species**

Monitoring of listed species may require their handling. This can result in harassment, increased susceptibility to predation and climatic conditions, den and burrow collapse, and direct mortality. Minimal general surface disturbance impacts are likely during the course of monitoring.

General wildlife harassment impacts are likely with the development of campgrounds. Preparing the campgrounds will require the removal of vegetation, except large trees, and blading of the site. Most species will be permanently displaced as a result. Immediately adjacent to the campgrounds wildlife will be subject to increased human disturbance.

Direct killing of or injury to individuals may result from the prescribed burning program. Fires may alter soil chemistry, impact seed sources, alter forage composition, and reduce prey bases. In addition, general surface disturbance and wildlife harassment impacts are expected from fire suppression and fire management activities.

Most importantly, however, are the significant beneficial effects to the San Joaquin kit foxes, giant kangaroo rats, blunt-nosed leopard lizards, California condors, American peregrine falcons, bald eagles, longhorn fairy shrimp and vernal pool fairy shrimp likely to be realized over the life of the Plan. A primary management emphasis of the CPNA is to contribute to the recovery of listed species and to reduce the likelihood that other species will need to be listed in the future. The CPNA will be managed to achieve long-term, viable, self-sustaining populations of listed species. The Service anticipates the CPNA will make significant contribution to the recovery of the current suite of listed species.

In addition to the general effects described by the USFWS Biological Opinion, road maintenance activities, minor construction and repair projects, and collisions with vehicles are also likely to affect San Joaquin antelope squirrels. Road grading can destroy burrows along the roadside. Excavating road materials from the existing gravel pit will destroy burrows located in the excavation area. Construction and repair projects that require trenching or surface disturbance can cause burrow collapse. Animals may become

entrapped inside burrows or be injured by direct contact with construction equipment. Vehicle use on existing roads may result in limited road kills.

## **VI. Conditions to Avoid Jeopardy**

Any activity that may potentially have an adverse impact upon greater sandhill cranes will be completed during the time that cranes are absent from the CPNA (April through November). No management activities that have the potential for adverse impact are planned.

Standard avoidance and mitigation measures are specified in the Carrizo Plain Natural Area Management Plan. Measures that would reduce impacts to San Joaquin antelope squirrels include:

Using previously disturbed areas for new activities as much as possible.

Prohibiting soil disturbing activities when soils are wet and muddy.

Installing signs and barriers to prevent continued travel on construction roads.

Designing surface disturbing activities to minimize wind and water erosion.

Minimizing vegetation removal and surface disturbance.

Removing all contemporary food related trash from project sites.

Conducting surveys for sensitive resources (including antelope squirrels) and avoiding impacts to burrows used by San Joaquin antelope squirrels as much as possible.

Requiring personnel familiar with sensitive resources to be present during certain construction activities.

Repeating surveys if more than 60 days has elapsed since the last survey.

Informing project workers that listed species are present in the area and of the project specific measures to avoid or minimize impacts.

Timing development activities to minimize impacts to core species (including antelope squirrels).

Providing escape ramps in trenches and inspecting trenches before backfilling.

Inspecting pipe ends greater than three inches for animals before moving, capping or burning them.

Implementing these standard measures will reduce potential impacts to the San Joaquin antelope squirrel.

## **VII. Incidental Take**

Pursuant to Section 2090 of CESA, DFG determines that the potential to take San Joaquin antelope squirrel pursuant to management actions proposed in this plan does exist. Loss of individuals may occur as a result of monitoring activities, development and repair activities, burning, road maintenance, vehicle collisions. However, because the standard mitigation and avoidance measures described above will be implemented, incidental take will be minimized.

Section 2091 of CESA requires DFG to determine and specify to the State lead agency reasonable and prudent measures that are necessary and appropriate to minimize the adverse impacts of the incidental taking. DFG has determined that if project conditions identified in the Plan and this Opinion are fully implemented and adhered to, no additional reasonable and prudent measures are required.

## **VIII. Conclusion**

If the conditions in the Plan and this Opinion are fully implemented by the Bureau, Conservancy and the Department, DFG has determined that the proposed project will not jeopardize the continued existence of the San Joaquin antelope squirrel and the greater sandhill crane.

## **IX. References**

Department of Fish and Game, Endangered Plant Program. Endangered Plant Notebook.

50 CFR Parts 17.11 and 17.12, Endangered and Threatened Wildlife and Plants, October 31, 1996.

U. S. Department of the Interior, Bureau of Land Management. Draft Caliente Resource Management Plan and Environmental Impact Statement. January 1993.

U. S. Department of the Interior, Fish and Wildlife Service. Formal Consultation for the Carrizo Plain Natural Area Management Plan, San Luis Obispo County, California (1-1-95-F-149), February 1, 1996.